

CLAIMS

We claim:

1. A method comprising:
comparing a subject color medical image to normal color medical image data; and
identifying abnormal pixels from the subject color medical image.
2. The method of claim 1, further comprising:
acquiring the subject color medical image using an endoscope.
3. The method of claim 1, where the subject color medical image has been converted from an image that is acquired initially in gray scale.
4. The method of claim 1, further comprising:
acquiring the subject color medical image data in a device dependent color space; and
converting the device dependent color space to a device independent color space.
5. The method of claim 1, where the abnormal pixels are abnormal in terms of saturation.
6. The method of claim 1, where the abnormal pixels are abnormal in terms of hue.
7. The method of claim 1, where the identification of abnormal pixels from the subject color medical image includes providing a variable threshold for determining whether a pixel from the subject color medical image is abnormal in terms of hue or saturation.
8. The method of claim 1, further comprising:
displaying a histogram that includes (i) saturation information about the subject color medical image and (ii) saturation information about the normal color medical image data.

9. The method of claim 8, where the displaying comprises displaying a histogram that includes (i) a saturation distribution of pixels from the subject color medical image and (ii) a saturation distribution of pixels from the normal color image data.
10. The method of claim 1, further comprising:
displaying the subject color medical image and highlighting areas of the subject color medical image that have a saturation that is greater than normal.
11. The method of claim 1, further comprising:
displaying a histogram that includes (i) hue information about the subject color medical image and (ii) hue information about the normal color medical image data.
12. The method of claim 11, where the displaying comprises displaying a histogram that includes (i) a hue distribution of pixels from the subject color medical image and (ii) a hue distribution of pixels from the normal color image data.
13. A computer readable medium comprising machine readable instructions for implementing one or more of the steps of the method of any of claims 1-12.
14. A method comprising:
displaying a subject color medical image;
comparing the subject color medical image to normal color medical image data to identify abnormal pixels from the subject color medical image; and
highlighting abnormal pixels on the displayed subject color medical image.
15. The method of claim 14, where the subject color medical image has been converted

from an image that is acquired initially in gray scale.

16. The method of claim 14, further comprising:

acquiring the subject color medical image in a device dependent color space; and
converting the device dependent color space to a device independent color space.

17. The method of claim 14, where the highlighting includes highlighting areas of the displayed subject color medical image that have a saturation that is greater than normal.

18. The method of claim 14, where the comparing includes providing a variable threshold for determining whether a pixel from the subject color medical image is abnormal in terms of hue or saturation.

19. The method of claim 14, further comprising:

displaying a histogram that includes (i) saturation information about the subject color medical image and (ii) saturation information about the normal color medical image data.

20. The method of claim 19, where the displaying comprises displaying a histogram that includes (i) a saturation distribution of pixels from the subject color medical image and (ii) a saturation distribution of pixels from the normal color image data.

21. The method of claim 14, further comprising:

displaying a histogram that includes (i) hue information about the subject color medical image and (ii) hue information about the normal color medical image data.

22. The method of claim 21, where the displaying comprises displaying a histogram that

includes (i) a hue distribution of pixels from the subject color medical image and (ii) a hue distribution of pixels from the normal color image data.

23. A computer readable medium comprising machine readable instructions for implementing one or more of the steps of the method of any of claims 14-22.

24. A method comprising:

acquiring a subject color medical image using an endoscope;

displaying a region of interest from the subject color medical image;

comparing the region of interest to normal color medical image data to identify

abnormal pixels from the region of interest; and

highlighting abnormal pixels on the displayed region of interest.

25. The method of claim 24, where the subject color medical image has been converted from an image that is acquired initially in gray scale.

26. The method of claim 1, where the subject color medical image is acquired in a device dependent color space, and further comprising:

converting the device dependent color space to a device independent color space.

27. The method of claim 24, where the highlighting includes highlighting areas of the displayed region of interest that have a saturation that is greater than normal.

28. The method of claim 24, where the comparing includes providing a variable threshold for determining whether a pixel from the region of interest is abnormal in terms of hue or saturation.

29. The method of claim 24, further comprising:

displaying a histogram that includes (i) saturation information about the region of interest and (ii) saturation information about the normal color medical image data.

30. The method of claim 29, where the displaying comprises displaying a histogram that includes (i) a saturation distribution of pixels from the region of interest and (ii) a saturation distribution of pixels from the normal color image data.

31. The method of claim 24, further comprising:
displaying a histogram that includes (i) hue information about the region of interest and (ii) hue information about the normal color medical image data.

32. The method of claim 31, where the displaying comprises displaying a histogram that includes (i) a hue distribution of pixels from the region of interest and (ii) a hue distribution of pixels from the normal color image data.

33. A computer readable medium comprising machine readable instructions for implementing one or more of the steps of the method of any of claims 24-32.